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Cooperative Economic Insect Report

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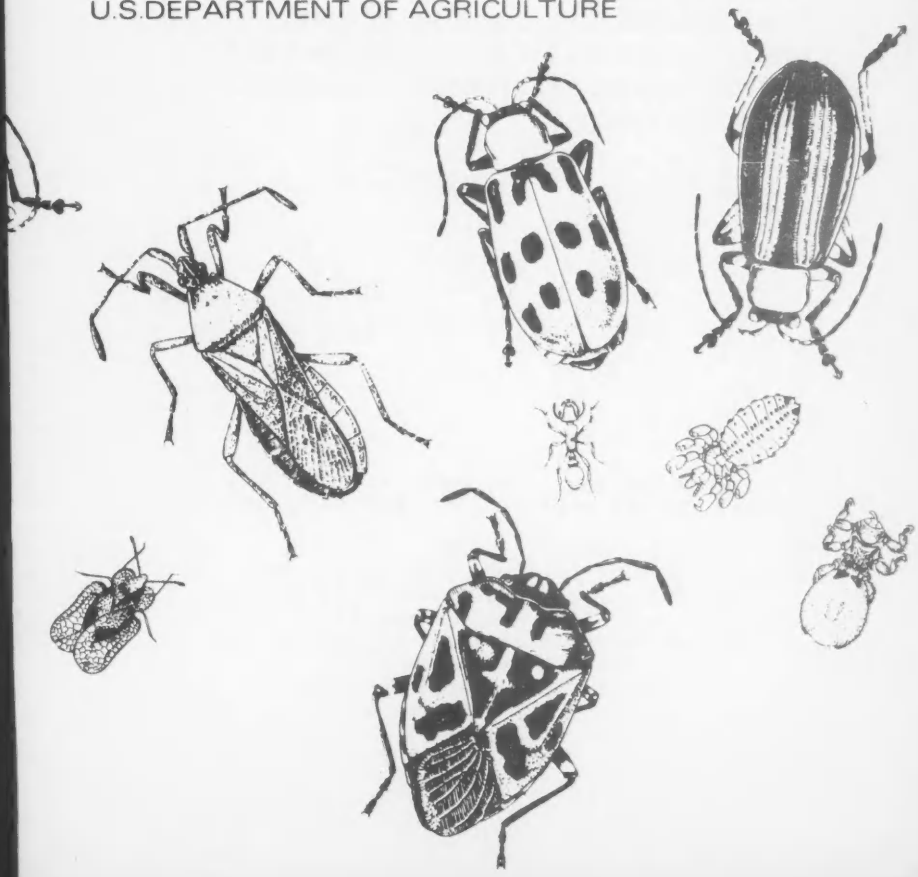

ANIMAL AND PLANT HEALTH INSPECTION SERVICE
PLANT PROTECTION AND QUARANTINE PROGRAMS
NEW PEST DETECTION AND SURVEY STAFF

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Service serves as a clearing house and does not assume responsibility for accuracy of the material.

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Volume 25 July 4, 1975 Number 27

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

ARMYWORM heavy in Tennessee, Illinois, Wisconsin, Ohio, and Maryland. (p. 549).

POTATO LEAFHOPPER damage in Indiana, Ohio, New York, and Virginia. (p. 550).

SORGHUM MIDGE heavy on sorghum in parts of Texas. (p. 552).

COLORADO POTATO BEETLE problem in Minnesota, Maryland, and Rhode Island. (p. 556).

Detection

For new county records, see page 564.

Change in Scientific Name

Acyrthosiphon loti has been changed to *A. caraganae*. (p. 553).

Reports in this issue are for the week ending June 27 and unless otherwise indicated.

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NATIONAL WEATHER SERVICE 30-DAY OUTLOOK

JULY 1975

The National Weather Service's 30-day outlook for July is for temperatures to average above seasonal normals over the southern Plateau and also in most areas east of the Continental Divide except for near normal in the South and the Northeast. Below normal temperatures are indicated for the West Coast States. Rainfall is expected to exceed the median amount over the Northwest, the northern Great Plains and the southern Plateau, as well as the north and south Atlantic Coast States. Elsewhere less than the median value is indicated.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the National Weather Service. You can subscribe through the Superintendent of Documents, Washington, D.C. 20250. Price $5.00 a year.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMY CUTWORM (Euxoa auxiliaris) - MINNESOTA - Decreased in west-central and northwest districts but still troublesome in some sunflower fields. Reduced 50 percent of stand in hundreds of acres in Traverse County field. Larvae still active, averaged 5 per foot of row. (Minn. Pest Rpt.). MICHIGAN - Perfect adult in blacklight trap June 19 at Shelby, Oceana County. First time adults taken in State; larvae found 3 years ago. (Newman).

ARMYWORM (Pseudaletia unipuncta) - TENNESSEE - Damage reported in 29 counties by June 20. Damaged corn, small grain, and pasture crops in 19 counties on 14,506 acres, of which 12,615 acres were treated. (Gordon). ILLINOIS - Adults heavy June 17-22, collection of 803 in light trap at Rochelle, Ogle County, on June 17. (Sur. Bull.). INDIANA - Larvae, up to 0.5 inch, light on roadside grasses in northern districts. (Meyer). WISCONSIN - Moths active in grasses last 2 periods and heavy in some blacklight trap catches. Definite potential for localized outbreaks. Heavy damage in Columbia County no-till cornfield. (Wis. Ins. Sur.). MICHIGAN - Clipped heads of wheat in scattered fields in southwestern area. (Ruppel). OHIO - Severe on no-till corn in Wayne County field by June 25. Larvae up to 4 (averaged one) per plant on 99 percent of plants. (Amstutz, Hoffman). Damaged 3 of 16 fields in central and northeastern areas. Infested 3-4 percent of fields in Portage County. Damaged 2 percent of Knox County field. (Lewis). MARYLAND - Moths in record numbers in blacklight traps on lower Eastern Shore. (U. Md., Ent. Dept.).

ASTER LEAFHOPPER (Macrosteles fascifrons) - WISCONSIN - Counts per sweep of small grains by area: Southeast and south-central--under one, west-central--2, and central--3. Nymphs generally half to five-sixth grown. Nymphs most numerous and comprised half of population in Waushara County. Aster yellows infection 3.5 percent for last period. (Wis. Ins. Sur.). NORTH DAKOTA - Ranged 150-250 (averaged 200) per 100 sweeps of McKenzie County wheat. (Brandvik, Scholl).

GREENBUG (Schizaphis graminum) - NEW MEXICO - Active on sorghum in Luna and Hidalgo Counties. (N.M. Coop. Rpt.). TEXAS - Increased in Hill and Ellis Counties. Light to moderate on Knox County sorghum. Present on Hale County sorghum. Under one per plant at Lubbock, Lubbock County. Moderate in isolated areas of Tom Green County with some controls applied. Increased in Reeves and Pecos Counties. (Buxkemper et al.). KANSAS - None to trace on sorghum in southwest, south-central and southeast districts. Up to 20 (averaged 3.2) per plant in 34 of 60 fields in Nemaha County. Averaged 5 per plant on 15-inch sorghum in Pottawatomie County and 10 (2 alates) per plant on 4-inch sorghum in Shawnee County. (Bell). NEBRASKA - Spotty in Johnson and Pawnee Counties. Averaged less than one per plant (30 percent alates) in 3 fields; averaged 7.67 per plant (5 percent alates) in fourth field. (Miller).

CORN EARWORM (Heliothis zea) - KANSAS - Infested up to 25 percent of corn whorls (near tassel stage) in Labette County; some larvae nearing full growth. Infested 0-4 percent of whorls in east-central district; corn 34 inches to near tassel stage. Moths taken in all

light traps. (Bell). NEBRASKA - Corn earworm fed on less than one percent of Fillmore County corn. (Peters). MISSOURI - Light on late corn in south-central area. Mostly second instars on 1-10 percent of plants. (Munson). MISSISSIPPI - Larvae on 25 percent of ears in 100 acres of field corn in Noxubee County. (Robinson). ALABAMA - Infested 3-foot corn throughout Escambia County. Controls applied. Larvae of this species and another noctuid moth damaged fruit and leaves of tomatoes, eggplants, and peppers in garden in Escambia County. Controls difficult. (Knowles). MARYLAND - H. zea adults below normal in blacklight traps statewide. (U. Md., Ent. Dept.).

CORN LEAF APHID (Rhopalosiphum maidis) - NEW MEXICO - Active on sorghum in Luna and Hidalgo Counties. (N.M. Coop. Rpt.). TEXAS - On sorghum in Hale County and Panhandle area. Light to moderate in Tom Green and Knox Counties. Moderate to heavy in Pecos County. (Latham et al.). On corn in Panhandle area. (Clymer). OKLAHOMA - Ranged 30-40 per plant on 10 to 12-inch grain sorghum in Texas County. Moderate in southwest counties. (Okla. Coop. Sur.). KANSAS - None to light in whorls of sorghum statewide; heaviest in some of older sorghum. (Bell). NEBRASKA - Light to moderate on sorghum in southeast counties. (Miller). ILLINOIS - Began to appear on corn in northern area. (Sur. Bull.).

POTATO LEAFHOPPER (Empoasca fabae) - IOWA - Stunted alfalfa in Story County field. Averaged 7 per sweep in Lee County alfalfa field. (Iowa Ins. Sur.). WISCONSIN - Averaged under 8 per sweep of forage in southern and central counties, but up to 18 per sweep in Dodge, Fond du Lac, and Marquette Counties. Averaged one per sweep in St. Croix and Polk Counties. Nymphs comprised half of population. Under 0.7 per sweep of soybeans in La Crosse, Walworth, Racine, and Kenosha Counties with few half-grown nymphs on undersides of leaves; up to 2 per sweep, including nymphs, in Dane County. At or under one per sweep of potatoes in central district. Ranged 0.5-2 per sweep of snap beans in central district and up to 5 in west-central district; nymphs half grown. (Wis. Ins. Sur.).

ILLINOIS - Potato leafhopper adults and nymphs averaged over 20 per sweep in Clinton County alfalfa field; damage light. Other fields, 1-3 per sweep. Ranged 1-6 per sweep in Ogle County fields. (Ill. Ins. Rpt.). INDIANA - Economic, up to 2.4 adults per sweep of alfalfa in northern and southern districts. Numerous on soybeans; nymphal averages of more than one per plant in some northern district fields with 2 to 4-trifoliate leaves. (Edwards, Meyer). OHIO - Adults (averaged 65) per 100 sweeps of 6 to 9-inch new growth alfalfa by county: Stark 88, Portage 72, and Ashtabula 28. (Lewis). NEW YORK - Early significant symptoms of leafhopper burn on second-cut alfalfa in Tompkins County. (Dell). VIRGINIA - Moderate to heavy damage on alfalfa stubble in Shenandoah County. (Conklin, Allen).

TOMATO HORNWORM (Manduca quinquemaculata) - TEXAS - Damaged tomatoes in gardens in Knox and Wilbarger Counties. Active in Panhandle area. Fed on tomatoes in Fannin and Grayson Counties. (Boring et al.).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - KANSAS - First-generation larval infestations on corn in Kaw Valley ranged 0-10 percent but up to 40 percent in Johnson County field and 42 percent in Shawnee County field. Average percent infestations ranged by county: Labette 4-6, Coffey 12, and Miami 2. Trace on corn in Stafford and Pawnee Counties. All eggs hatched in areas surveyed; larvae mostly second instars. (Bell). NEBRASKA - Whorl infestations averaged 4 percent on 50-inch corn. (Raun). Damaged under one percent of 48-inch corn in Fillmore County. Larvae in second to third instar. (Peters). Egg masses on one percent of 51-inch corn in Pawnee and Johnson Counties. (Miller).

MISSOURI - European corn borer on 63-89 percent of early planted corn in south-central area with 2-5 larvae per plant, about 25 percent in midrib or stalk. (Munson). ILLINOIS - Fresh egg masses averaged one per 10 corn plants in northwest area. (Ill. Ins. Rpt.). WISCONSIN - Moths decreased in southern counties, but flights underway in St. Croix County and eastern counties. Egg masses 2 or fewer per 50 plants. (Wis. Ins. Sur.). OHIO - Larvae in central area by June 25. Damaged leaves on 2 and 14 percent of plants in 2 Knox County fields. Infested 2, 6, and 50 percent of plants in Coshocton County; some fourth instars. Last field in continuous, no-till corn; other fields were tilled. Eggs masses absent in these counties but observed at one per 50 plants in Holmes, Portage, Geauga, Lake, and Ashtabula Counties. (Lewis). MARYLAND - First-generation moth flights about completed for summer. Infested 5-20 percent of whorls in more advanced field corn. (U. Md., Ent. Dept.). DELAWARE - First pupae of first brood on Sussex County corn. (Burbutis).

SOUTHWESTERN CORN BORER (Diatraea grandiosella) - TEXAS - Infested corn in Panhandle area. On whorls in Hale County. (Clymer, Latham). KANSAS - Larvae generally none to light on corn in Stafford, Pawnee, and Barton Counties. Nearly all eggs hatched, "shot-holing" of whorls noticeable. Infestations none to trace in 6 Stafford County fields of 34 to 48-inch corn; 5 and 20 percent in 2 other fields. Mostly second instars. Trace infestation this year compared with 50 percent in 1974 in Pawnee County field. First and second instars on corn in Stevens County. (Bell).

CORN ROOTWORMS (Diabrotica spp.) - ILLINOIS - D. longicornis (northern corn rootworm) and D. virgifera (western corn rootworm) pupae in Mason County. Damage light on corn throughout northern and western areas. (Ill. Ins. Rpt.). MISSOURI - D. virgifera larvae 3-12 per corn plant in northwest area; heavy lodging in untreated fields. (Munson). NEBRASKA - First Diabrotica sp. pupa on June 18 at Mead, Saunders County. Larvae averaged 40 per plant in untreated fields; many unhatched eggs in soil samples. Mostly second and third instars ranged 0-12 (averaged less than one) per plant in York and Merrick Counties. Active in 28 (20 percent) cornfields in Clay County; larvae 1-5 per plant June 19. Larvae currently averaged one per plant in Fillmore County cornfield following milo and 15 per plant in Merrick County field treated at planting. (Mayo et al.). SOUTH DAKOTA - Diabrotica spp. hatch underway statewide. (Walgenbach). MINNESOTA - Diabrotica spp. hatch underway in southwest district. First instars and a few second instars in Redwood and Brown County corn. (Minn. Pest Rpt.).

SORGHUM MIDGE (Contarinia sorghicola) - TEXAS - Continued to damage blooming grain sorghum in Rio Grande Valley. Some fields treated daily for 7 days. Very light in north-central area. Averaged less than one per 100 heads in Ellis, Dallas, Kaufman, and Fannin Counties. Moderate to heavy in Wharton, Ft. Bend, and Matagorda Counties; treatment began June 19. Remained light in Hill and Ellis Counties, increase expected in 14 days. Very heavy populations emerging from Johnson grass and early blooming sorghum. Ranged 2-5 per 100 heads in Bell and Navarro Counties. Up to 100+ per head in late blooming heads in maturing fields in Zavala County. Very light in south-central area. (Deer et al.).

SMALL GRAINS

HESSIAN FLY (Mayetiola destructor) - OKLAHOMA - Widespread and light (1-5 percent) on Pawnee County wheat. Infested 90 percent of one field at Skedee; "flaxseeds" up to 16 per stem. Infestation trace to 5 percent in 2 Payne County fields; light in one field each in Creek, Tulsa, and Washington Counties; 10 percent in one Osage County field; and heavy in Delaware County. (Okla. Coop. Sur.).

ENGLISH GRAIN APHID (Macrosiphum avenae) - NEVADA - Ranged 0-125 (averaged 15) per sweep of wheat at Fallon, Churchill County. Lady beetle larvae and adults numerous in all fields surveyed. (Barclay).

TURF, PASTURES, RANGELAND

A GRASS BUG (Labops hesperius) - UTAH - Mainly adults on Diamond Fork, Utah County, range. Damage conspicuous to crested wheatgrass and some other planted grasses. (Haws). SOUTH DAKOTA - Severely damaged crested wheatgrass in Lawrence and Jackson Counties. (McDaniel).

RANGE CATERPILLAR (Hemileuca oliviae) - NEW MEXICO - Egg clusters 14 percent hatched east of Corona, Lincoln County, June 17. (N.M. Coop. Rpt.).

FORAGE LEGUMES

ALFALFA WEEVIL (Hypera postica) - NEVADA - Larvae averaged 9 per sweep of hay alfalfa in northeastern area of Diamond Valley, Eureka County. (Peters). UTAH - Eggs and larvae greatly increased in Cache County. Larvae 2.8 and 185 per 10 sweeps at River Heights and 55 at north Logan. (Davis, Spykerman). NEW MEXICO - Averaged 2 adults and 2 larvae per 25 sweeps at Albuquerque, Bernalillo County. Most fields cut. (N.M. Coop. Rpt.).

KANSAS - Few first-generation alfalfa weevil adults still present on alfalfa in Finney County. (Bell). NEBRASKA - Larvae averaged 2.7 and adults 7.7 per 100 sweeps in Otoe County forage legumes June 20. (Manglitz). Currently, adults migrating from stacks into small fields in Cuming County. Adults 0-26 (averaged 9.25) and larvae 0-8 (averaged 2.75) per 100 sweeps in Pawnee and Johnson Counties. Some regrowth already in 10-15 percent bloom stage. (Lempke, Miller). SOUTH DAKOTA - Up to 1,200 larvae per 100 sweeps

in Lawrence County. (Walstrom, Rezek). NORTH DAKOTA - Alfalfa weevil lighter than in 1974. Larvae 30-370 (averaged 132) per 100 sweeps of irrigated alfalfa in McKenzie County. Ranged 0-6 (averaged 2.5) per 100 sweeps of non-irrigated alfalfa in Mercer and Oliver Counties. First cutting underway. (Brandvik, Scholl). MINNESOTA - Adults trace on Redwood County alfalfa. First and second instars 60 per 100 sweeps on second-growth alfalfa in Brown County. Middle instars averaged 57 per 100 sweeps with high of 220 per 100 sweeps in southeast district. (Minn. Pest. Rpt.). WISCONSIN - Pupated on alfalfa. (Wis. Ins. Sur.). OHIO - Larvae per 100 sweeps of 6 to 9-inch regrowth alfalfa by county: Stark 122, Portage 200, Lake 68, Ashtabula 56, and Knox 14. (Lewis).

FLORIDA - Averaged 5 alfalfa weevil larvae per 10 sweeps and one adult per 50 sweeps on full-bloom alfalfa at Gainesville, Alachua County. (Fla. Coop. Sur.). MASSACHUSETTS - Larvae decreased from 8-9,000 to 0-5 per 100 sweeps in Hampshire County. (Beresky).

PEA APHID (Acyrthosiphon pisum) - NEVADA - Averaged 250+ per sweep on uncut alflafa and 100 per sweep on second growth at Fallon, Churchill County; comprised 93-100 percent of populations. Averaged 6 per sweep of hay alfalfa in northeast area of Diamond Valley, Eureka County. Averaged 9-42 per sweep of seed alfalfa treated with cleanup sprays at Jungo, Humboldt County. (Barclay et al.). UTAH - Counts of 51 and 93 per 10 sweeps in River Heights alfalfa fields and 13 at north Logan, Cache County. (Davis, Spykerman). OHIO - Averages per 100 sweeps ranged 40-106 (average 65) in northeastern area. (Lewis). WISCONSIN - Up to 23 per sweep of alfalfa in Marquette County field. (Wis. Ins. Sur.).

AN APHID (Acyrthosiphon sp., caraganae group) - The new aphid pest of alfalfa in California, Arizona, and Nevada will be reported under this complex. V.F. Eastop has determined that A. caraganae has priority over A. loti, its synonym. (Cal. Coop. Rpt.). NEVADA - Comprised 0-7 percent of populations sampled on hay alfalfa at Fallon, Churchill County. (Barclay).

VARIEGATED CUTWORM (Peridroma saucia) - NEBRASKA - Began pupation on Saunders County alfalfa, pupation averages ranged 25-30 percent on June 18. Larval averages ranged 5-7 per square yard in untreated area of field near Mead and 15 per square yard in field south of Wahoo. Undamaged regrowth appeared in many fields in southeast and east districts. (Roselle et al.). Averaged 8 per square foot in Cedar County field. (Witkowski, June 20).

LYGUS BUGS (Lygus spp.) - NEW MEXICO - Ranged 750-2,500 per 25 sweeps of alfalfa in Virden Valley and up to 1,000 per 25 sweeps at Rodeo, Hidalgo County, and near Deming, Luna County. Many fields yellowed. (N.M. Coop. Rpt.).

ALFALFA BLOTCH LEAFMINER (Agromyza frontella) - NEW YORK - Damage extensive to first cutting in Chenango County. (Bouck).

SOYBEANS

THREECORNERED ALFALFA HOPPER (Spissistilus festinus) - ALABAMA - Damaged 50 percent of plants in 30-acre soybean field in Mobile County. Many second and third instars in large soybean field in

Geneva County. (Vickery et al.). MISSISSIPPI - S. festinus adults averaged 2 per 3 feet of row in Noxubee, Lee, Webster, Leake, and Winston Counties. (Robinson).

SOYBEAN CYST NEMATODE (Heterodera glycines) - TENNESSEE - Large populations damaged soybeans in many western areas week ending June 20. (Gordon).

PEANUTS

LESSER CORNSTALK BORER (Elasmopalpus lignosellus) - TEXAS - Overall mean infestation for peanut pest management program area slightly higher from previous period with more fields experiencing damaging levels beyond pre-pegging economic threshold. Larvae small to medium. Average infestations ranged 6.3-8.3 percent in 3-22 percent of fields in Commanche County. (Curtis).

COTTON

BOLL WEEVIL (Anthonomus grandis) - TEXAS - Increased emergence and punctured cotton squares in Rio Grande Valley. Damage averaged 40 percent; damage heavy in irrigated fields but 10 percent or less in most dryland cotton. Weevils noted in cotton just beginning bloom in Hill and Ellis Counties. Punctured squares extremely light. Overwintered specimens still found in untreated fields in Ellis, Kaufman, Hunt, Delta, Collin, and Fannin Counties. Control good in treated fields. One untreated Fannin County field with 660 boll weevils per acre. Leggett traps caught 91 and 16 adults in 2 Knox County traps and 2 in Cottle County. Punctured squares decreased in south-central area as cotton begins heavy squaring. Light in Concho County. (Norman et al.). OKLAHOMA - Pheromone traps (124) caught 176 adults in Jackson County. (Okla. Coop. Sur.).

ARKANSAS - Pheromone trapping concluded for season. Most traps ran 5 weeks beginning week of May 19. Catches peaked May 26-30. Total catch of 3,355 adults averaged 7.2 weevils per trap per week. As usual, heavier in more northern than in more southern areas. (Boyer). MISSISSIPPI - Feeding and oviposition punctures increased in Noxubee, Lowndes, Calhoun, Yalobusha, and Grenada Counties. Many fields received pinhead treatment. (Robinson). ALABAMA - Heavy, infested 10-49 (averaged 33) percent of squares in 800 acres of light squaring cotton in Elmore County. Heavy emergence of first-generation weevils expected July 3-10. Averaged 3.35 per trap in 48 sex-lure traps on farm in Cherokee County June 25; area treated weekly. Infested 18 percent of squares in trap area and 13 percent in non-trap area. Weather during June the most suitable in 10-20 years for high survival of all stages. High first "hatch-out" of weevils occurred statewide in June except in many larger fields in Tennessee Valley in north area of State. (Lowery et al.). GEORGIA - Averaged 38,880 punctured squares per acre in 3 Crisp County fields and 18,090 punctured squares per acre in Colquitt County week ending June 20. (Goodwin et al.).

BOLLWORM (Heliothis zea) - TEXAS - Damage under 10 percent in most Rio Grande Valley fields. Oviposition up to 40 percent in some fields, larvae generally 10 percent or less in treated and untreated fields. Small larvae in almost all fields in Hill and Ellis Counties. Infestation in north-central area increased, 20 percent damage in Kaufman County field. Populations expected to be more widespread next period. Oviposition still noted in Blacklands area. Eggs ranged 3-25 percent per 100 plants in Navarro County. Beneficial insects satisfactorily reducing egg counts in most fields. Substantial bollworm-damaged squares up to 60 percent in field treated with systemic at planting time. Decreased in south-central area. (Deer et al.). MISSISSIPPI - H. zea moth flight ended; eggs decreased. Beneficials controlling this first generation. (Robinson). ALABAMA - Heliothis spp. moth flight heavy in Lee and Elmore Counties. Eggs 13-33 and small larvae 2-4 per 100 terminals in 1,600 acres of cotton. Beneficial insects effective. (Wisner et al.).

COTTON FLEAHOPPER (Pseudatomoscelis seriatus) - TEXAS - Continued increase in north-central area. Infestations ranged 4-78 percent in Kaufman County. Light in Ellis, Collins, Hunt, and Delta Counties. Increased in Hill and Ellis Counties. Counts 10-50 per 100 terminals. Still heavy in untreated fields. Infestations ranged 10-80 percent in McLennan, Coryell, Hill, and Navarro Counties. Some treatments applied to older cotton in parts of Hardeman County. Very light in most south-central areas. (Turney et al.).

LYGUS BUGS (Lygus spp.) - TEXAS - Some minor damage on Willacy County cotton. Damaging infestations treated in some fields at Los Fresnos and Brownsville, Cameron County. Heavy square loss in Hill and Ellis Counties. More common than usual in north-central area. Increased in Trans-Pecos area. Moderate to heavy in Hill and Navarro Counties. (Hoelscher et al.).

TARNISHED PLANT BUG (Lygus lineolaris) - MISSISSIPPI - Adults and nymphs increased statewide on cotton. Adult averages per 25 sweeps by county: Noxubee 4, Madison 6-10, and Bolivar 2. (Robinson).

MISCELLANEOUS FIELD CROPS

SUNFLOWER MOTH (Homoeosoma electellum) - TEXAS - Very light in Panhandle area. Infestations continued in Reeves and Pecos Counties. Larvae found in Ellis County. Heavy in sunflower field in Throckmorton County. Moths flights continued heavy, larvae heavy on blooming sunflowers in Hale County. Some control initiated. Heavy in some early planted fields at Lubbock, Lubbock County. Some controls applied. (Turney et al.). OKLAHOMA - Ranged 1-7 per 10 sunflower heads (5-10 percent in bloom) in Harmon County. (Okla. Coop. Sur.).

CARROT BEETLE (Bothynus gibbosus) - TEXAS - Adults 400-600 per light trap per night near Lockett, Wilbarger County. Continued to decline in High Plains area. (Boring, McIntyre). OKLAHOMA - Light trap catches (one trap per county): Greer 422, Tillman 175, Jackson 17, and Texas 17. (Okla. Coop. Sur.).

SUNFLOWER BEETLE (Zygogramma exclamationis) - MINNESOTA - Eggs heavy on about 10 percent of sunflower fields; 6-10 or more leaves per plant. (Minn. Pest Rpt.).

POTATOES, TOMATOES, PEPPERS

COLORADO POTATO BEETLE (Leptinotarsa decemlineata) - UTAH - Moderate on potatoes in Weber and Davis Counties. (Duncan). MINNESOTA - Many mating pairs in Red River Valley potato fields. About 10-20 percent of fields have populations that will cause heavy damage in weeks ahead; treatment will be needed. (Minn. Pest Rpt.). MARYLAND - Larval damage severe in large planting of eggplant near Clinton, Prince Georges County. (U. Md., Ent. Dept.). RHODE ISLAND - All stages in Washington County potato fields. Controls poor. (Partyka).

EUROPEAN CORN BORER (Ostrinia nubilalis) - MARYLAND - Heavily damaged potato stalks in 5 acres in Prince Georges County. (U. Md., Ent. Dept.).

GREEN PEACH APHID (Myzus persicae) - OREGON - First alates trapped in bait pans at Adrian Beach, Malheur County, June 16-17. (Burr). IDAHO - First of season on potatoes. Averaged 5 in 50 leaves near Homedale, Owyhee County. (Burns).

BEANS AND PEAS

SEEDCORN MAGGOT (Hylemya platura) - WISCONSIN - Damaged snap beans planted in late May and early June in central, south-central and west-central districts. (Wis. Ins. Sur.).

CUCURBITS

SQUASH BUG (Anasa tristis) - TEXAS - Damaged squash in gardens in Wilbarger County. Damaging numbers in Limestone and McLennan Counties. Increased in north-central area. Moderate to heavy from San Angelo area. (Hoelscher et al.). OKLAHOMA - Light to moderate on garden squash in several southwest counties. (Okla. Coop. Sur.).

DECIDUOUS FRUITS AND NUTS

CODLING MOTH (Laspeyresia pomonella) - IDAHO - Males in pheromone traps at Moscow, Latah County, totaled 21 for June 19-26. (Portman). MICHIGAN - Entries into fruit common in abandoned orchards near Grand Rapids, Kent County, and at Hart, Oceana County. (Schwallier, Cater). OHIO - Larvae damaged 5.7 percent of fruits on unsprayed Golden Delicious tree in Wayne County. (Levine). ALABAMA - Larvae in 25 percent of apples on 2 trees in Madison County. (Stisher).

ORIENTAL FRUIT MOTH (Grapholitha molesta) - CALIFORNIA - Controls applied to peaches. (Cal. Coop. Rpt.). MICHIGAN - Second-generation adults emerged at Watervliet, Berrien County. (Nichols).

LESSER PEACHTREE BORER (Synanthedon pictipes) - WISCONSIN - Ranged 8-23 (averaged 13) in pheromone traps in Door County June 19-25. (Wis. Ins. Sur.).

REDBANDED LEAFROLLER (Argyrotaenia velutinana) - MICHIGAN - Second-generation adults emerged in southwest area. Averaged 2 per pheromone trap at Richland, Kalamazoo County. (Nichols). OHIO - Larval damage of 1.4 percent on unsprayed Golden Delicious apple tree in Wayne County. (Levine).

FRUITTREE LEAFROLLER (Archips argyrospilus) - NEW YORK - First of season in pheromone traps June 19 in Ulster County. (Weires).

ROSE CHAFER (Macrodactylus subspinosus) - MICHIGAN - Very severe in several orchards in northwest area. Defoliated new block near Frankfort, Benzie County. (Olsen).

PLUM CURCULIO (Conotrachelus nenuphar) - OHIO - Feeding damage in 4.5 percent and egg laying scars on 9.1 percent of fruit on unsprayed peach tree in Wayne County. (Levine).

GREEN PEACH APHID (Myzus persicae) - COLORADO - Abundant on untreated plum and prune trees in West Slope orchards. (Bulla).

APPLE MAGGOT (Rhagoletis pomonella) - MICHIGAN - Adults taken in traps in Kalamazoo and Richland, Kalamazoo County, and Fennville, Allegan County. Emergence expected this weekend in most southwest area orchards. (Olsen). CONNECTICUT - First adults at New Haven, New Haven County, June 20. (Savos). NEW YORK - First adults of season in emergence cages June 18 in Ulster County. (Weires). VERMONT - First adult emerged June 18 from experimental seedings at South Burlington, Burlington County. (MacCollom, Nielsen).

CHERRY FRUIT FLY (Rhagoletis cingulata) - MICHIGAN - Cage emergence ceased in Berrien County. Flies removed from the emergence cage were 28, 27, 27, 2, and 0 on June 19, 20, 21-23, 24, 25 respectively. Adults numerous in neglected planting of Montmorency cherry trees in Grand Traverse County, eggs deposited in fruit. (Hanna).

EUROPEAN RED MITE (Panonychus ulmi) - OHIO - Not suppressed on Red Delicious trees in Fairfield County by Zetzellia mali (a phytoseiid mite). Bronzed leaves on untreated trees; none on oil-treated trees. (Holdsworth).

PECAN NUT CASEBEARER (Acrobasis nuxivorella) - TEXAS - Damage to pecans heavy in parts of Young County and light in Archer County. Light in Pecos, Reeves, Ward, Ector, and Upton Counties. First-generation damage under one percent in Maverick County and up to 5 percent in one grove in Medina County. Control excellent (less than 6 percent damage). Damage moderate in Taylor and Sutton Counties. (McWhorter et al.).

FALL WEBWORM (Hyphantria cunea) - TEXAS - Heavy on pecans at Uvalde, Uvalde County. New generation in 1-2 weeks. Built up in south-central area; heaviest in residential areas. Light at San Angelo. (Stewart et al.). ARKANSAS - Earlier than usual on south area pecans. (Boyer). MISSISSIPPI - Averaged 4 webs per pecan tree in Carroll County orchard. Webs 15-20 per tree on some pecans in Madison, Yazoo, and Hinds Counties. (Robinson).

SMALL FRUITS

CYCLAMEN MITE (Stenotarsonemus pallidus) - WISCONSIN - Heavy in few commercial strawberry plantings in Jackson County and in one planting in Washington County; treatment required. (Wis. Ins. Sur.).

ORNAMENTALS

BAGWORM (Thyridopteryx ephemeraeformis) - ARKANSAS - Heavier than usual in various areas. (Boyer). OKLAHOMA - Heavy on evergreens in several southwest counties; moderate in Adair County. (Okla. Coop. Sur.). KANSAS - Heavy on some Sedgwick County junipers. (Bell).

EUROPEAN EARWIG (Forficula auricularia) - CALIFORNIA - Mass numbers troublesome in yards. Invasions into residences upsetting home-owners. Adults flying on golf course at El Cajon, San Diego County, disturbed golfers. (Cal. Coop. Rpt.).

AN APHID (Pentalonia nigronervosa) - ALABAMA - Tremendous populations developed on Caladium bulbs stored in basement of home at Auburn, Lee County, by May 27, 1975. Bulbs trucked into State in February. Aphids completely covered new sprouts; controls necessary. Collected by H.F. McQueen. Determined by M.B. Stoetzel. (McQueen).

TWOLINED SPITTLEBUG (Prosapia bicincta) - ALABAMA - Adults on lower surface of leaves on many hybrid hollies at several buildings in Lee County. Damage caused 10-20 percent leaf drop with 25-65 adults per 6-foot shrub. (Walker et al.).

EUONYMUS SCALE (Unaspis euonymi) - VIRGINIA - Heavy on Westmoreland County euonymus. (Schabinger, Surles). TEXAS - Heavy; damaged euonymus in Motley, Wichita, and Wilbarger Counties. (Boring).

AN ARMORED SCALE (Velataspis dentata) - CALIFORNIA - Infested bromeliad plant in nursery at Los Angeles, Los Angeles County. Eradication underway. (Cal. Coop. Rpt.).

FOURLINED PLANT BUG (Poecilocapsus lineatus) - MICHIGAN - Severely damaged mint, viburnum, chrysanthemum, and asters. (Wallner).

BROWN GARDEN SNAIL (Helix aspersa) - CALIFORNIA - Heavy on nasturtiums at San Diego and on pine, chinaberry, and other yard trees at Poway, San Diego County. (Cal. Coop. Rpt.).

FOREST AND SHADE TREES

WHITE PINE WEEVIL (Pissodes strobi) - RHODE ISLAND - Damaged leaders of pines and spruces very evident in unsprayed nursery blocks and landscape plantations in Kent County. (Hannah). MARYLAND - Heavily damaged several blocks of white pine near Hampstead, Carroll County. (U. Md., Ent. Dept.).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - KANSAS - First-generation pupae and moths in Sedgwick County; most first-generation moths emerged in Riley County and some eggs laid; few large larvae and pupae remain; some infestations very heavy. (Bell).

FALL WEBWORM (Hyphantria cunea) - OHIO - Larvae collected from wild cherry trees in Tar Hollow State Forest, Ross County, where development usually earlier than in rest of State (Gordon). NEW MEXICO - Second instars active at Las Cruces, Dona Ana County, 18 days later than in 1974. (N.M. Coop. Rpt.).

FOREST TENT CATERPILLAR (Malacosoma disstria) - MICHIGAN - Defoliated large area in Chippewa County, pupation completed. (Mosher).

SESIID MOTHS - OHIO - Males of hardwood tree borers Synanthedon rhododendri (rhododendron borer), S. decipiens, and Paranthrene tricincta in Wayne County, and Thamnosphecia fulvipes in Lake County taken for first time by synthetic attractant traps in State June 14-20. (Boggs, Nielsen).

ELM LEAF BEETLE (Pyrrhalta luteola) - ARKANSAS - Damaged leaves on lower branches of Chinese elm at Fayetteville, Washington County. (Boyer). TEXAS - Moderate to heavy on Chinese elms throughout Trans-Pecos area. Continued to feed on elms in north-central area. Active in Lubbock and Hale Counties. Moderate to heavy in Taylor, Sutton, and Kimble Counties. (Neeb et al.). NEBRASKA - Severe on American and Siberian elms in Lancaster County. Defoliation 60 percent in some locations. Eggs, all larval stages, and pupae present. (Roselle). NEW MEXICO - Larvae active at Albuquerque, Bernalillo County, some leaves skeletonized. Adults active at Las Cruces, Dona Ana County, June 24. (N.M. Coop. Rpt.). COLORADO - Hatched on northeastern area elms, damage evident. (Hantsbarger).

A GRASSHOPPER (Dendrotettix quercus) - OKLAHOMA - A long-winged female taken in wheatfield at Skedee, Pawnee County, on June 24, 1975. Collected and determined by D.C. Arnold. This is a new county record. (Okla. Coop. Sur.).

BOXELDER APHID (Periphyllus negundinis) - UTAH - Extremely heavy on many boxelder trees at Logan and Hyrum, Cache County, and Salt Lake City, Salt Lake County. (Knowlton).

MAN AND ANIMALS

SCREWWORM (Cochliomyia hominivorax) - Total of 349 cases reported from continental U.S. during June 15-21 as follows: Texas 338, New Mexico 3, Arizona 8. Total of 288 cases confirmed from Mexico. Number of sterile flies released this period totaled 143,234,800 as follows: Texas 128,384,800; New Mexico 90,000; Arizona 14,760,000. Total of 33,032,000 sterile flies released in Mexico. (Vet. Serv.).

CATTLE GRUBS (Hypoderma spp.) - NORTH DAKOTA - Adults running beef cattle in Dunn, Mercer, and McKenzie County. (Brandvik, Scholl).

HORN FLY (Haematobia irritans) - FLORIDA - Increased; ranged 180-600 (average 384) per animal on untreated beef steers at Belle Glade, Palm Beach County. Averaged 500 per animal on untreated beef cattle near Gainesville, Alachua County. (Fla. Coop. Sur.). MISSISSIPPI - Averaged 500+ per cow in untreated herds in Oktibbeha, Warren, Yazoo, Holmes, Carroll, and Clay Counties. (Robinson). ILLINOIS - Up to 142 per animal in some herds. (Sur. Bull.). OKLAHOMA - Heavy on Adair County cattle. (Okla. Coop. Sur.). TEXAS - Moderate to heavy on sheep and goats in San Angelo area. Rapid increase over last 10 days due to recent rain in Panhandle area. Moderate to heavy on cattle in Archer, Knox, and Young Counties. Moderate to heavy on cattle across Trans-Pecos area. (Clymer et al.).

FACE FLY (Musca autumnalis) - NORTH CAROLINA - Averaged 30 per head in mountain counties and 15 per head in the Piedmont. Heaviest in Buncombe and Haywood Counties with 36 and 32 per head, respectively. Infestations noted in all 16 herds in and west of Wake County. Peak not expected until mid-July. (Barnes, Hunt). MISSISSIPPI - Decreased but remained above 20 per face in Benton, Alcorn, Itawamba, Tallahatchie, Yalobusha, Calhoun, Chickasaw, Carroll, and Oktibbeha Counties. Adults on beef herds averaged per face by county: Leflore 6, Humphreys 2, and Yazoo 3; these are new county records. Adults collected June 23, 1975, and identified by J.V. Robinson. (Robinson). ILLINOIS - Up to 20 per animal in some herds. (Sur. Bull.). WISCONSIN - Moderately annoyed dairy cattle in Calumet, Chippewa, and Polk Counties. (Wis. Ins. Sur.). OKLAHOMA - Ranged 0-5 per face on cattle checked 5 miles west of Mannford, Creek County, June 26. Collected and determined by D.C. Arnold. This is a new county record. (Okla. Coop. Sur.).

STABLE FLY (Stomoxys calcitrans) - WISCONSIN - Annoyance to cattle moderate to severe in Calumet and Polk Counties. (Wis. Ins. Sur.). ILLINOIS - Up to 15 per animal in some herds. (Sur. Bull.). TEXAS - Very heavy on dairy cattle in parts of Archer County. (Boring).

MOSQUITOES - MASSACHUSETTS - Dominant collections in Hampshire County: Coquillettidia perturbans 189 of 269 adults in light traps, Aedes sticticus 6 and A. vexans 5 of 17 night bites, and A. stimulans 7 of 12 day bites. (Drozdowski). WISCONSIN - Biting continued severe in several localities. A. vexans one of major biters. Annoyance moderate to severe for cattle in Polk, Chippewa, Calumet, and Outagamie Counties. (Wis. Ins. Sur.). MINNESOTA - A. vexans dominant in light trap and night bite collections at Minneapolis and St. Paul. C. perturbans second in trap collections. Larvae in third and fourth instars. (Minn. Pest Rpt.). OKLAHOMA - Psorophora spp. continued annoying in Payne County. P. ciliata biting rates of one per minute reported. (Okla. Coop. Sur.). TEXAS - Heavy in Archer, Knox, Wichita, and Young Counties. Mosquitoes main problem for man in Panhandle area. (Boring, Clymer). UTAH - Troublesome in Corinne and South Curlew Valley, Box Elder County, and at Logan and Benson, Cache County. (Knowlton).

EAR TICK (Otobius megnini) - ARKANSAS - Infestation introduced 8-9 years ago from out-of-State into Izard County now countywide. (Cathey). TEXAS - Infested cattle in Medina County and in San Angelo area, Tom Green County. (Stewart, McWhorter).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Heavy on Adair County cattle. (Okla. Coop. Sur.).

AMERICAN DOG TICK (Dermacentor variabilis) - WISCONSIN - Still heavy in woody and brushy areas. (Wis. Ins. Sur.).

BENEFICIAL INSECTS

A MYMARID WASP (Anaphes flavipes) - This parasitoid recovered from Oulema melanopus (cereal leaf beetle) eggs as follows. NEW YORK - Barker and Lisle Townships, Broome County, June 16 by P. Gerber and in Woodhull, Jasper, Wayland, and Cochecton Townships, Steuben County, June 13 and 19 by P. Gerber and R. LeMaire. Determined by R. Gaines. MARYLAND - Prince Georges County June 24 by J. Cavey. Determined by P. DeWitt. MICHIGAN - Comins Township (2 sites), Oscoda County, June 26; Munro Township, Cheboygan County, June 24; Wilson Township (2 sites), Alpena County, June 24. All collections by C. Bare and G. Buysee. All determinations by P. DeWitt. All above are new county records. Also recovered in Clyde Township, St. Clair County, June 19 by T. Black. OHIO - Congress, Chester, and Green Townships, Wayne County, June 17; Montville, Guilford, and Wadsworth Townships, Medina County, June 18; Rootstown, Nelson, and Freedom Townships, Portage County, June 19; all recoveries by C. Custer. (PPQ). Also taken in Sandusky County May 28 by W.E. Wille. (Wille). PENNSYLVANIA - Cleveland Township, Columbia County, May 28 by J.S. Stimmel; Brooklyn Township, Susquehanna County, June 12 by P. Kriszaumkas; Washington and West Chillisquaque Townships, Northumberland County, June 13 by J.S. Stimmel. Determined by A. Wheeler. This is a new county record. (PPQ).

OHIO - A. flavipes completely parasitized late-season cereal leaf beetle eggs in northeast area. (Custer). PENNSYLVANIA - Parasitized 87,85, and 78 percent of cereal leaf beetle eggs in 3 oatfields in Blair County June 23. (Kadow).

A EULOPHID WASP (Tetrastichus julis) - Recovered from Oulema melanopus (cereal leaf beetle) larvae as follows. INDIANA - Pleasant and Wills Township, LaPorte County, June 23 by R.B. Cummings. NEW YORK - Portage, Mount Morris, West Sparta, and Springwater Townships (in oatfields), Livingston County, June 17 and 18 by R. Lemaire. OHIO - Cherry Valley Township June 13 and Windsor Township June 18 in Ashtabula County by H. Kemp and S. Strasen; Auburn Township, Geauga County, June 5 by H. Kemp; Mesopotamia Township, Trumbull County, June 5 by H. Kemp. PENNSYLVANIA - Warsaw Township, Jefferson County, June 4 by R. Shiner and J. Murningham; Lake Township, Mercer County, June 10; Sugar Grove Township, Warren County, June 11; Mineral Township, Venango County, June 10. All recoveries by R. Shiner and W. Pachacz. (PPQ).

ICHNEUMONID WASPS - Recovered from Oulema melanopus (cereal leaf beetle) larvae as follows. INDIANA - Diaparsis spp. and Lemophagus curtus in Wills Township, LaPorte County, June 23 by R.B. Cummings. NEW YORK - Diaparsis spp. from field insectary in Richmond Township. Ontario County, June 20 by T. Crowe. OHIO - Diaparsis spp. in Mesopotamia Township, Trumbull County, June 5 by H. Kemp. (PPQ).

CARABID BEETLES - PENNSYLVANIA - First releases in State of Carabus auratus (172) and C. nemoralis (17) in Clarks Valley, Lebanon County, on June 2, 5, and 12 against Porthetria dispar (gypsy moth). (Fusco).

A PHYTOSEIID MITE (Typhlodromus fallacis) - OHIO - Moving into apple trees from overwintering sites on ground. Averaged only 0.06 mites per leaf but forming second generation in Fairfield County. Exerting control in Licking County orchard: One T. fallacis to 8 Panonychus ulmi (European red mite). (Holdsworth). COLORADO - Light, 0-1 per 50 leaves, in few West Slope orchards. (Bulla).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

CEREAL LEAF BEETLE (Oulema melanopus) - NEW YORK - Larvae collected on oats at Bethlehem, Albany County, at Coxsachie, Greene County, and at Hillsdale, Columbia County, June 23, 1975, by R. Spaide. At Deposit, Delaware County, June 17, 1975, by L.E. Doring. At Broadalbin, Fulton County, June 20, 1975, by R.A. Spaide and R. Smullen. At Princeton, Schenectady County, June 24, 1975, by R. Smullen. All determinations by R.E. White. These are new county records. (PPQ). Larvae very light on boot-stage oats in Chenango County (Bouck); fields in larvae 0.2 per stem in Wayne County. (Wilson). NEW JERSEY - Larvae collected on oats at Titusville, Mercer County, June 18, 1975, by B. Emens and B. Balaam. Determined by R.E. White. This is a new county record. (PPQ). PENNSYLVANIA - Survey of oats in 18 counties June 16-20: Adults 1-25 per 100 sweeps; eggs 1-53 and larvae 1-47 per 10-foot row; damage trace to 30 percent. (Snelbaker et al.).

COMSTOCK MEALYBUG (Pseudococcus comstocki) - CALIFORNIA - Number of pheromone traps placed: 568 in Tulare County lemons, 163 in Kern County lemons, 665 at Lindsay and 96 at Springville, Tulare County, 176 at Wasco and Shafter, Kern County, and another 34 traps replaced at Porterville, Tulare County. First release of Cryptolaemus montrouzieri (225,000 lady beetles) this season completed at Porterville. Sprays applied at Lindsay to 343 hosts on 24 properties on 8 blocks. First spray of season completed at Delano May 23 on 44,216 hosts on 3,417 properties (25 were spots), on 253 blocks. Visual surveys initiated this period; 15 collections made from 5,327 hosts inspected on 363 properties on 15 blocks. Survey at Lindsay half completed. (Cal. Coop. Rpt.).

EUROPEAN PINE SHOOT MOTH (Rhyaciona buoliana) - OREGON - Second spray application completed in Umatilla County. Total of 2,500 pines treated at Hermiston, Umatilla, Hat Rock, McNary Dam, and McNary Manor. (Larson, Brown). WASHINGTON - Heavily infested small pine plantation at Puyallup, Pierce County. Development on June 18: 2 percent larvae, 8 percent pupae, 48 percent adults. (Barstow).

GRASSHOPPERS - MINNESOTA - Second and some third instars of Melanoplus bivittatus became economic in Clay County by June 20. Reached 25 per square yard in some roadsides. Edge-row damage in some wheatfields. Ranged 10-15 per square yard on roadsides, no migration, in Marshall County. (Minn. Pest. Rpt.). NORTH DAKOTA - Cropland infestations in McKenzie County ranged from less than one grasshopper to 50 (averaged 17) per square yard in margins and ranged from less than one up to 60 (averaged 6) per square yard in fields. M. bivittatus and M. sanguinipes dominant with M. packardii showing up; first through fifth instars present.

Damage in some fields light to heavy with damage extending into some fields about 3 rods. Rangeland infestations ranged from less than one to 4 (averaged 2) per square yard. M. sanguinipes and M. bivittatus dominant; first through third instars present. (Brandvik, Scholl). Up to 20 (averaged 3) grasshoppers per square yard on wildlife refuge land in Sheridan County. M. bivittatus and M. sanguinipes dominant; first to second instars present. (Winks).

NEBRASKA - Melanoplus spp. nymphs ranged 200-800 (averaged 550) per 100 sweeps of alfalfa in Pawnee and Johnson Counties. (Miller). KANSAS - Grasshopper nymphs numerous along field borders in some counties in southeast district and northern counties of north-central district (up to 30 per square yard); one case of damage to seedling sorghum reported from southeast district. M. bivittatus, M. femurrubrum, and M. differentialis nymphs averaged 0.5 per row foot in 15-inch soybeans in Johnson County. (Bell). WYOMING - First and second instars of Ageneotettix deorum, Amphitornus coloradus, Aulocara elliotti, and Melanoplus sp. in Johnson County. (Crosby, Patch, June 20).

GYPSY MOTH (Porthetria dispar) - VERMONT - Buildup at North Burlington, Burlington County. (MacCollom, Nielsen). MASSACHUSETTS - Fifth and sixth instars at Stockbridge, Berkshire County. (Harrington). RHODE ISLAND - Fifth instars statewide, some early pupae in Providence County. (Gardner). PENNSYLVANIA - Aerial spraying under Federal-State-County Cooperative Agreement completed in eastern counties on 29,982 acres by June 11. (Slippey).

JAPANESE BEETLE (Popillia japonica) - MASSACHUSETTS - Adult observed on roses June 19 at Belchertown, Berkshire County. (Beresky). NEW JERSEY - First adults in State June 18 at Jobstown, Burlington County. Sizable populations in Middlesex, Monmouth, and Somerset Counties. (Ins.-Dis. Newsltr.). MARYLAND - Adults appearing in most areas. (U. Md., Ent. Dept.). WEST VIRGINIA - Adults emerged in Kanawha County June 18 and in Fayette County June 20. (Moore, Hacker). VIRGINIA - Adults emerged on Rockingham County thistle June 18 and at Blacksburg, Montgomery County, June 25. (Surles et al.). TENNESSEE - Adults emerged in Cocke and Jefferson Counties week ending June 20. (Hammett). OHIO - Mostly in prepupal and pupal stage throughout northeastern area. (Lawrence). MICHIGAN - Four adults emerged from Macomb County trap June 25, 7-10 days early for southeast area. (Hanna).

MORMON CRICKET (Anabrus simplex) - WASHINGTON - A. simplex, A. longipes rarely so heavy, Peranabrus scabricollis (coulee cricket) found for first time in years, Apote notabilis, and Steiroxys sp. heavily infested 5,000 acres of timber and meadows few miles north of Owhi Lake, Okanogan County. (Blackburn).

PINK BOLLWORM (Pectinophora gossypiella) - TEXAS - More larvae noted in rosetted blooms in scattered Willacy County fields. (Norman, Deer).

WHITEFRINGED BEETLES (Graphognathus spp.) - ALABAMA - First adults of season in State. Many adults emerged in several Morgan County areas. Adult collected in Elmore County. (Wilson, Lowery).

WOOLLY WHITEFLY (Aleurothrixus floccosus) - CALIFORNIA - Infestation moderate to heavy on one of 7 infested properties at Encinitas, San Diego County. No parasitism yet. Overcast, cool weather held woolly whitefly and parasite activity to minimum. Total of 43 parasites released on one property. (Cal. Coop. Rpt.).

HAWAII INSECT REPORT

General Vegetables - CUBAN LAUREL THRIPS (Gynaikothrips ficorum) heavy on several Chinese banyan saplings at Kohala, Hawaii Island. Feeding caused conspicuous distortion of the leaves. All stages found. (Yoshioka). BANANA SKIPPER (Erionota thrax) has spread rapidly throughout Hawaii Island; light at Kapoho and Pepeeko. Light throughout Molokai. Damage extremely light. (Yoshioka, Mau). MELON FLY (Dacus cucurbitae) heavy damage in 8 acres of watermelon at Puna, Hawaii Island. Approximately 80 percent damage to young fruits. (Yoshioka).

Forest and Shade Trees - FORMOSAN SUBTERRANEAN TERMITE (Coptotermes formosanus) heavily infested and killed 3 blackbutt eucalyptus (Eucalyptus pilularis) trees at Kalepa Mountain, Kauai. Workers, soldiers, and alate nymphs found. Trees in 10-square-yard area. (Fujii, Kiyono).

DETECTION

New County Records - CEREAL LEAF BEETLE (Oulema melanopus) NEW YORK - Greene, Columbia, Delaware, Fulton, Schenectady. NEW JERSEY - Mercer (p. 562). FACE FLY (Musca autumnalis) MISSISSIPPI - Leflore, Humphreys, Yazoo. OKLAHOMA - Creek (p. 560). A GRASSHOPPER (Dendrotettix quercus) OKLAHOMA - Pawnee (p. 559). A MYMARID WASP (Anaphes flavipes) NEW YORK - Broome, Steuben. MARYLAND - Prince Georges. MICHIGAN - Oscoda, Cheboygan, Alpena. PENNSYLVANIA - Northumberland (p. 561).

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap	Agrotis ipsilon (black cutworm)	Heliothis zea (corn earworm)	Diatraea grandiosella (southwestern corn borer)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
COLORADO												
Denver 6/13-19			BL	1		26						
FLORIDA												
Gainesville 6/20-26			BL				3					
ILLINOIS (County)												
Ogle 6/17-23			BL	16								
INDIANA (Districts)												
Northwest 6/14-20			BL	7								
Southwest 6/19-25			3BL	33	2			2				
KANSAS												
Great Bend 6/19-24			BL			78						
Manhattan 6/24			BL	8			1					
MICHIGAN												
Shelby 6/13-22			2BL	257		1						
Tipton 6/17-22			BL	94								
MISSISSIPPI												
Stoneville 6/20-26	68-92	1.53	2BL	2	10							
NEBRASKA												
North Platte 6/14-20			BL			42						
NEW JERSEY												
Vineland 6/18-24			7BL	10								
Seabrook 6/20-24			5BL	25								
NORTH DAKOTA												
Bottineau 6/19,25			BL			1						
Fargo 6/21,26			BL	1		2						
OHIO												
Wooster			3BL	91			9					

	Agrotis ipsilon (black cutworm)	Heliothis zea (corn earworm)	Diatraea grandiosella (southwestern corn borer)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
COLORADO									
Denver 6/13-19	1		26						
FLORIDA									
Gainesville 6/20-26				3					
ILLINOIS (County)									
Ogle 6/17-23	16								
INDIANA (Districts)									
Northwest 6/14-20	7								
Southwest 6/19-25	33	2			2				
KANSAS									
Great Bend 6/19-24			78						
Manhattan 6/24	8			1					
MICHIGAN									
Shelby 6/13-22	257		1						
Tipton 6/17-22	94								
MISSISSIPPI									
Stoneville 6/20-26	2	10							
NEBRASKA									
North Platte 6/14-20			42						
NEW JERSEY									
Vineland 6/18-24	10								
Seabrook 6/20-24	25								
NORTH DAKOTA									
Bottineau 6/19,25			1						
Fargo 6/21,26	1		2						
OHIO									
Wooster	91			9					

	Heliothis zea (corn earworm)	Loxostege commixtalis (garden webworm)	Loxostege rantalis (beet webworm)	Loxostege sticticalis (garden webworm)	Mamestra configurata (tomato hornworm)	Mamestra picta (tomato hornworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
COLORADO														
Denver 6/13-19		200						6						
FLORIDA														
Gainesville 6/20-26									1	3	3	1		
ILLINOIS (County)														
Ogle 6/17-23							1	44	2,079					
INDIANA (Districts)														
Northwest 6/14-20							1	7	399					
Southwest 6/19-25					16		34	20	260					
KANSAS														
Great Bend 6/19-24	28							94	131			47		
Manhattan 6/24	5							20	19			7		
MICHIGAN														
Shelby 6/13-22							35	146	458					
Tipton 6/17-22							21	89	384					
MISSISSIPPI														
Stoneville 6/20-26	8	29						11	35			67		
NEBRASKA														
North Platte 6/14-20									32					
NEW JERSEY														
Vineland 6/18-24							11							
Seabrook 6/20-24					2		7							
NORTH DAKOTA														
Bottineau 6/19,25									3					
Fargo 6/21,26								1	64				1	
OHIO														
Wooster							24	148	1,374			3		

LIGHT TRAP COLLECTIONS

	Temperature °F.	Precipitation (inches)	Type of trap (BL = blacklight; I = incandescent; W = kerosene-vapor; O = other)	Agrotis ipsilon (black cutworm)	Baileyana goreu (cutworm)	Euxoa auxiliaris (army cutworm)	Faronta diffusa (velvet bean caterpillar)	Feltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Laspeyresia pomonella (codling moth)	Loxostege commixtalis (garden webworm)	Loxostege rantalis (beet webworm)	Loxostege sticticalis (beet webworm)	Mamestra dimidiamaculata (tobacco budworm)	Mamestra sexta (tobacco budworm)	Ostrinia nubilalis (European corn borer)	Peridroma saucia (variegated cutworm)	Pseudaletia unipuncta (armyworm)	Spodoptera exigua (beet armyworm)	Spodoptera frugiperda (fall armyworm)	Spodoptera ornithogalli (yellowstriped armyworm)	Trichoplusia ni (cabbage looper)	Crops
OREGON (Counties)																								
Linn 6/19-25			BL														2							
Marion 6/19-25			BL														2							
PENNSYLVANIA (Districts)																								
Central 6/14-24			6BL	21							21						6	12	597			1		
South East 6/14-24			7BL	13							2								64					
SOUTH DAKOTA																								
Brookings 6/19-25			BL				6										18	27	278					
WEST VIRGINIA (Counties)																								
Kanawha 6/25			BL	7														11	43					
Kandolph 6/23			BL	3															42					
WISCONSIN																								
Lancaster 6/19-25			BL	3													20	16	218					
Mazomanie 6/19-25			BL														4	1	44					

WEATHER OF THE WEEK ENDING JUNE 29

Reprinted from Weekly Weather and Crop Bulletin supplied by National Weather Service, NOAA.

HIGHLIGHTS: Varying amounts of precipitation fell in all of the Nation except the Southwest. Severe weather occurred in all States east of the Continental Divide. Temperatures were below normal in the West, as much as 6-10 degrees in the Pacific Northwest and near normal to 4 degrees below in the South. The rest of the Nation averaged above normal. The season's first tropical storm (Amy) was born off the coast of North Carolina.

PRECIPITATION: Typical seasonal weather, thunderstorms with associated severe weather, began the week on Monday. Thunderstorms were scattered from northwest Texas to New York, north through Kansas to eastern North Dakota, and into Michigan. More storms were along the Gulf of Mexico. Showers were numerous from Washington into California and in the northern Rockies. Tornadoes swooped down in Iowa, Texas, and eastern Colorado. Baseball-sized hail pelted residents of Amarillo, Texas. Tuesday, thunderstorms had moved eastward to central Texas and Louisiana, north to Wisconsin, and then east through southern New York, and to northern Virginia. Storms along the gulf coast and southeast Atlantic States continued. Light rain and showers continued in the Pacific Northwest. Showers and thunderstorms became more widespread on Wednesday, and were scattered in an area east and south of the line from central Texas to Wisconsin and through Pennsylvania. An exception was eastern North Carolina which was still without rain. Rain and thunderstorms that had been confined to the Pacific Northwest and northern Rockies spread into Nebraska and the Dakotas. A low center in Montana and a deep trough southward was kicking up strong winds and severe weather. Snow was reported at higher elevations in the Rockies. Severe weather continued into early morning Thursday, from the Dakotas to Kansas, and then began to diminish as the line moved eastward. Later showers, some heavy, and thunderstorms covered most of the East. Showers were scattered from central Texas and the Mississippi River Valley eastward through Pennsylvania. Light showers fell from the Pacific Northwest through the northern Rockies. Friday was another typical summer day, with high temperatures and scattered thundershowers over much of the country. The Southwest, North Central States, and New England had mostly clear skies. Late in the day, severe weather moved into the western Dakotas and Colorado. Local flooding occurred in central Kansas, Iowa, and Colorado. Showers continued in the Pacific Northwest. The high humidity fed energy into thundershowers again on Saturday. Activity was scattered from Texas along the Gulf Coast States, lower Mississippi Valley and east coast to New England. Eastern North Dakota and adjacent areas reported severe weather late in the day. Several tornadoes, windstorms, and hail struck the area. A tropical depression wound up off the North Carolina Coast and rains were falling near the coast. Light showers were still occurring from Washington to Montana. The Great Lakes States had partly cloudy skies and fair skies covered the southwest. Severe weather in southeastern North Dakota and northwestern Minnesota continued into Sunday. Serious flooding was occurring before the rain diminished. Further intensification took place later in the day. Other thunderstorms developed during the day in Atlantic and Gulf Coast States and in the Mississippi Valley. A depression off North Carolina developed into the season's first tropical storm and was christened "Amy".

TEMPERATURE: Temperatures for the week were cool to cold in the West, cool in the South and southeast, and warm to hot in the central and northeastern States. On the first day of the week, Augusta, Georgia, equaled the record low for that date with 59 degrees. On the same day, several places in New England reported new record highs with temperatures in the 90's. Hot weather continued in New England through Wednesday when cooler air moved south. During the same period and continuing, conditions in the Midwest were hot and muggy with high temperatures near 90 degrees. Meanwhile, a low pressure center aloft kept pumping cool air from the Gulf of Alaska into the West. Flagstaff, Arizona, reported a cold 26 degrees Thursday morning but clear skies and lots of sun warmed them to 81 degrees by afternoon. In the northern Rockies, and Northwest, temperatures only rose to the 50's and 60's. The Nation's low temperature Saturday morning was at Truckee, California, with 29 degrees. All during the week, high temperatures at many spots in the Southwest exceeded 100 degrees but this is not unusual for this time of year. The last day of the week, Sunday, warm moist air continued to dominate the Nation east of Rockies. Ninety degree readings moved into Iowa and Nebraska. The 50's in the Pacific Northwest made it the coolest section of the Nation.

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